

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 33

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WAYNE R. HANSEN,
PAUL E. PASTUSEK,
and JERRY CERKOVNIK

Appeal No. 96-4022
Application 08/197,011¹

ON BRIEF

Before McCANDLISH, Senior Administrative Patent Judge, and
MEISTER and NASE, Administrative Patent Judges.

MEISTER, Administrative Patent Judge.

¹ Application for patent filed February 15, 1994.
According to appellants, the application is a continuation of
Application 07/883,667, filed May 15, 1992.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 2-7, 9-21 and 23. Claims 22 and 24-35, the only other claims remaining in the application, stand allowed.

The appellants' invention pertains to an anti-whirl rotary drag bit for drilling subterranean formations. Independent claim 9 is further illustrative of the appealed subject matter and reads as follows:

9. An anti-whirl rotary drag bit for drilling subterranean formations, said drag bit comprising:

a bit body including a bit face portion extending to a gage portion located thereabove of said bit body via an intervening flank portion of said bit body immediately adjacent said gage portion of said bit body;

a bearing zone located on said gage portion of said bit body at one side of said drag bit;

a first plurality of cutters extending from said bit body a first height, said first plurality of cutters being located on said bit face portion and said flank portion of said bit body in a plurality of radial planes thereof extending thereacross, said first plurality of cutters for generating a directed side force vector toward said bearing zone located at said one side of said drag bit by said first plurality of cutters on said bit face and said flank portion engaging portions of said subterranean formations during said drilling thereof, none of said first plurality of cutters being located on said flank portion of said bit body adjacent said bearing zone; and

at least one second cutter located on said flank portion of in substantially the same radial plane as at least one cutter of said first plurality of cutters, said at least one second cutter located on said flank portion of said bit body adjacent said bearing zone, said at least one second cutter on said flank

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portion extending therefrom a lesser height than the first height of said first plurality of cutters;

wherein said second cutter on said flank portion of said bit body adjacent said bearing zone selectively engages portions of said subterranean formations during said drilling reducing wear of said bearing zone on said gage portion of said bit body thereby extending the life of said drag bit and the tangential forces generated on said bit body by at least one cutter of said first plurality of cutters and said at least one second cutter act in substantially the same radial plane of said bit body.

The reference relied on by the examiner is:

Warren et al. (Warren) 4,982,802 Jan. 8, 1991

Claims 2, 9, 10, 16-21 and 23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Warren.

Claims 3-7 and 11-15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Warren.

We will not sustain either of the above-noted rejections. For reasons stated *infra* in our new rejection of the appealed claims under 35 U.S.C. § 112, second paragraph, no reasonably definite meaning can be ascribed to certain language appearing in the claims. In comparing the claimed subject matter with the applied prior art, it is apparent to us that considerable speculations and assumptions are necessary in order to determine what in fact is being claimed. Since a rejection on prior art cannot be based on speculations and assumptions (*see In re Steele*,

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305 F.2d 859, 862-63, 134 USPQ 292, 295-96 (CCPA 1962) and ***In re Wilson***, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)), we are constrained to reverse the examiner's rejections of claims 2, 9, 10, 16-21 and 23 under 35 U.S.C. § 102(b) and claims 3-7 and 11-15 under 35 U.S.C. § 103 based on the reference to Warren. We hasten to add that this is a procedural reversal, rather than one based upon the merits of the §§ 102(b) and 103 rejections.

Under the provisions of 37 CFR § 1.196(b) we make the following new rejections.

Claims 2-7, 9-21 and 23 are rejected under 35 U.S.C. § 112, second paragraph. Initially we note that the legal standard for indefiniteness is whether a claim reasonably apprises those of skill in the art of its scope. ***In re Warmerdam***, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). In making this determination claim language, even though understandable when read in abstract, cannot be read apart from and independent of the supporting disclosure on which it is based. ***See In re Cohn***, 438 F.2d 989, 993, 169 USPQ 95, 98 (CCPA 1971). Additionally, in order to satisfy the second paragraph of § 112, a claim must accurately define the invention in the technical sense. ***See In re Knowlton***, 481 F.2d 1357, 1366, 178 USPQ 486, 492-93 (CCPA

1973). With these principles in mind, we now consider the terminology employed in the claims on appeal.

Each of the independent claims on appeal specifies a "flank portion" that is "immediately adjacent" a gage portion of the bit. The flank portion or region is referenced in line 28 of page 8 of the specification by the numeral 40; however, the axial extent of this flank portion or region is totally unclear when considering the specification, drawings and claims as a whole. More specifically, the upper extent of the flank portion or region 40 is depicted in Figs. 2-6 as ending well short of the gage portion 14 and, thus, it does not appear that the flank portion or region 40 can even be considered to be "adjacent,"² much less "immediately adjacent," to the gage portion 14 as claimed. The lower extent of the flank portion or region 40 is also unclear inasmuch as Figs. 2-6 of the drawings clearly depict this flank portion or region as **including** flank cutter 30 whereas (1) page 8, line 22, of the specification refers to this flank portion or region as being "cutter devoid" and (2) independent claims 9 and 16 set forth that "none" of the first plurality of cutters are located thereon. We particularly note that, other

² The American Heritage Dictionary, Second College Edition, 1982, Houghton Mifflin Company, Boston, MA, defines "adjacent" as -- 1. Close to; lying near. 2. Next to; adjoining --.

than a broad reference to the numeral 40, there are no words which describe the lower axial extent of the flank portion or region.

Independent claims 9 and 16 additionally lack precision and particularity in that lines 7 and 8³ of each of these claims expressly sets forth that the plurality of cutters are located on the flank portion but then, in contradiction, sets forth in lines 13 and 14 that none of the first plurality of cutters are located on the flank portion. Additionally, independent claims 9 and 16 on the one hand each sets forth in lines 3 and 4 that the gage portion is located **above** the bit body but, on the other hand, in line 5 makes reference to "said gage portion of said bit body." How can something that is located above the bit body be considered to be a part of the bit body?

Moreover, independent claims 9, 16, 21 and 23 are inaccurate in the technical sense since there is no disclosed structure which would allow for either the (1) second cutter or cutters (claims 9 and 21), (2) wear knot (claim 16) or (3) flank cutter (claim 23) to "selectively" engage portions of the wall of the

³ The reference to specific lines in the claims in this decision is with respect to the lines in the claims as they appear in the appellants' brief.

borehole or subterranean formations as these claims set forth (claim 9 in lines 21 and 22; claim 16 in lines 21 and 22; claim 21 in lines 20 and 21; claim 23 in lines 22 and 23). In this regard it should be noted that it does not follow that just because one cutter protrudes a lesser distance from the profile of the bit body than another, that there is a function or power of making a selection or choice. It is further unclear how **tangential** forces generated on the bit body by cutters and/or wear knobs that are on opposite sides of (or at least spaced apart along the curving outer profile 42 of) the bit body can possibly be construed as **acting** in "the same radial plane" of the bit body as set forth in the "wherein" clause of independent claims 9, 16, 21 and 23 (a **tangential** force would appear to inherently act **perpendicularly** to one of the infinite number of radial planes extending through the bit body).

In independent claims 9 and 16 "in a plurality of radial planes" should apparently be --along a plurality of radial planes-- (claim 9, line 9; claim 16, lines 9 and 16). In line 16 of independent claim 9 "of in substantially the same radial plane" should apparently be --along the same radial plane--. In independent claims 21 and 23 "in one or more radial planes" should apparently be --along one or more radial planes-- (claim

21, lines 11 and 12; claim 23, lines 11 and 12). Similarly, in independent claims 21 and 23 "in substantially the same one or more radial planes" should apparently be -- along substantially the same one or more radial planes-- (claim 21, line 16; claim 23, lines 15 and 16). We also observe that it is the **centers** of the cutters that are located along a radial plane inasmuch as some of the cutting faces of the cutters are angularly disposed with respect to a radial plane (i.e., have an increased backrake angle).

In dependent claims 10-15, "said at least one flank cutter" lacks a clear antecedent basis since **both** the first plurality of cutters and the "at least one second cutter" have been set forth in parent claim 9 as being located on the flank portion. We also observe that both the first and second cutters are referred to as "flank cutters" in the specification (see, e.g., pages 5 and 6).

Claims 2-7, 9-21 and 23 are rejected under 35 U.S.C. § 112, first paragraph, as being based upon an original disclosure which fails to provide descriptive support for the subject matter now being claimed. We initially observe that the description requirement found in the first paragraph of 35 U.S.C. § 112 is separate from the enablement requirement of that provision. **See *Vas-Cath Inc. v. Mahurkar***, 935 F.2d 1555, 1560-64, 19 USPQ2d

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1111, 1114-17 (Fed. Cir. 1991) and *In re Barker*, 559 F.2d 588, 591, 194 USPQ 470, 472 (CCPA 1977), **cert. denied, sub. nom, Barker v. Parker**, 434 U.S. 1238 (1978). With respect to the description requirement, the court in *Vas-Cath Inc. v. Mahurkar* at 935 F.2d 1563-64, 19 USPQ2d 1127 stated:

35 U.S.C. § 112, first paragraph, requires a "written description of the invention" which is separate and distinct from the enablement requirement. The purpose of the "written description" requirement is broader than to merely explain how to "make and use"; the applicant must also convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession **of the invention**. The invention is, for purposes of the "written description" inquiry, **whatever is now claimed**.

. . . drawings alone **may** be sufficient to provide the "written description of the invention" required by § 112, first paragraph.

Moreover, as the court set forth in *Barker* 559 F.2d at 593, 194 USPQ at 472, in quoting with approval from *In re Winkhaus*, 527 F.2d 637, 640, 188 USPQ 129, 131 (CCPA 1975):

"That a person skilled in the art might realize from reading the disclosure that such a step is **possible** is not a sufficient indication to that person that the step is part of appellants' invention."

Here, there is no descriptive support in the appellants' original disclosure for the limitations appearing in the

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independent claims that (1) second cutter or cutters (claims 9 and 21), (2) wear knot (claim 16) or (3) flank cutter (claim 23) "selectively" engage portions of the wall of the borehole or subterranean formations as these claims set forth (claim 9 in lines 21 and 22; claim 16 in lines 21 and 22; claim 21 in lines 20 and 21; claim 23 in lines 22 and 23). Additionally, there is no descriptive support for the limitation appearing in each of the independent claims that the flank portion is "immediately adjacent" the gage portion.

In summary:

The examiner's rejections of claims 2, 9, 10, 16-21 and 23 under 35 U.S.C. § 102(b) and claims 3-7 and 11-15 under 35 U.S.C. § 103 based on the reference to Warren are reversed.

New rejections of claims 2-7, 9-21 and 23 under 35 U.S.C. § 112, first and second paragraphs, have been made.

Any request for reconsideration or modification of this decision by the Board of Patent Appeals and Interferences based upon the same record must be filed within one month from the date of the decision (37 CFR § 1.197). Should appellants elect to have further prosecution before the examiner in response to the new rejection under 37 CFR § 1.196(b) by way of amendment or showing of facts, or both, not previously of record, a shortened

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statutory period for making such response is hereby set to expire
two months from the date of this decision.

No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

REVERSED - 37 CFR § 1.196(b)

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Administrative Patent Judge)	
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